

Claims

1. A method for verifying the authenticity of  
5 a document, wherein said document comprises a carrier (1)  
with a plurality of perforations (5a, 5b), wherein at  
least part of the perforations have an elongate cross  
section with a minimum and a maximum diameter ( $d_1$ ,  $d_1'$ ;  
 $d_2$ ,  $d_2'$ ), characterized by the step of viewing the docu-  
10 ment from at least one viewing direction ( $7'$ ) that is  
non-perpendicular to a surface (1a) of the carrier (1)  
and deriving the authenticity from an optical transmis-  
sion of said perforations (5a, 5b).

2. The method of claim 1 further comprising  
15 the step of comparing the optical transmission of said  
perforations (5a, 5b) with an expected optical transmis-  
sion.

3. The method of claim 2 wherein the document  
is viewed from at least one direction that is perpendicu-  
20 lar to a direction parallel to the maximum diameter ( $d_2$ ,  
 $d_2'$ ) of at least some of the perforations (5a, 5b).

4. The method of any of the preceding claims  
wherein the document is viewed from at least one direc-  
tion that is perpendicular to a direction parallel to the  
25 minimum diameter ( $d_1$ ,  $d_1'$ ) of at least some of the perfo-  
rations (5a, 5b).

5. The method of any of the preceding claims  
wherein said perforations (5a, 5b) extend through said  
carrier (1) in a direction perpendicular to said surface.

30 6. The method of any of the preceding claims  
wherein the minimum diameter ( $d_1$ ,  $d_1'$ ) is substantially  
equal to or smaller than a thickness (D) of the carrier  
(1).

7. A security document comprising carrier (1)  
35 and a security feature with a plurality of perforations  
(5a, 5b) in said carrier, in particular for carrying out  
the method of any of the preceding claims, wherein at

least part of the perforations (5a, 5b) have an elongate cross section with a minimum and a maximum diameter ( $d_1$ ,  $d_1'$ ;  $d_2$ ,  $d_2'$ ), characterized in that the document comprises at least two perforations (5a, 5b) with different cross sections.

8. The security document of claim 7 wherein said perforations (5a, 5b) have cross sections with equal area but different shape.

9. The security document of any of the claims 7 or 8 wherein said plurality of perforations comprises a first type (5a) and a second type (5b) of perforations, wherein the minimum diameter ( $d_1$ ) of the first type of perforations is parallel to the maximum diameter ( $d_2'$ ) of the second type of perforations.

10. The security document of any of the claims 7 to 9 wherein said plurality of perforations (5a, 5b) have equal area of cross section and therefore uniform transmission when being viewed from a viewing direction perpendicular a surface of said carrier (1).

11. The security document of any of the claims 7 to 10 wherein said perforations (5a, 5b) form a human recognizable transmission pattern when viewed under an angle that is non-perpendicular to a surface of the carrier (1).

12. The security document of any of the claims 7 to 11 wherein said perforations (5a, 5b) extend through said document in a direction perpendicular to a surface (1a) of the carrier (1).

13. The security document of claim 12 wherein each perforation (5a, 5b) has substantially uniform cross section through said document.

14. The security document of any of the claims 7 to 13 wherein the carrier (1) is of flexible plastic or paper, and in particular wherein the security document is a banknote or part of a passport.

15. The security document of any of the claims 7 to 14 wherein some of said perforations (5a, 5b)

have circular cross section and/or are arranged in a two-dimensional array.

16. The security document of any of the claims 7 to 15 wherein the minimum diameter ( $d_1$ ,  $d_1'$ ) is substantially equal to or smaller than a thickness ( $D$ ) of the carrier (1).

17. The security pattern of any of the claims 7 to 16 wherein the minimum diameters ( $d_1$ ,  $d_1'$ ) of all perforations are equal, and in particular wherein all minimum diameters ( $d_1$ ,  $d_1'$ ) of all perforations are parallel to each other.

18. The security pattern of any of the claims 7 to 17 wherein the maximum diameter ( $d_2$ ,  $d_2'$ ) is at least 1.5 times larger than the minimum diameter ( $d_1$ ,  $d_1'$ ).